

## Variation in the Cinnamon-breasted Warbler of the South West Arid Zone of the Afrotropics

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**Abstract.** The Cinnamon-breasted Warbler *Euryptila subcinnamomea* (A. Smith, 1847) is an uncommon endemic of low scrub growing among rocks on the plateau of the South West Arid Zone of the Afrotropics, extending from central Namibia, south to the Karoo regions of the Cape Province. It is closely allied — perhaps even congeneric — to species of small barred bush warblers now grouped in the genus *Calamonastes* Sharpe, 1883, but in contrast with its three component species (*C. simplex*, *C. stierlingi* and *C. fasciolatus*) is currently believed to show no taxonomically significant variation. Study of the available material of *E. subcinnamomea* in southern African collections reveals that it is not monotypic, varying as it does in colouration in association with rainfall levels, and two subspecies require to be now recognised. For one of the subspecies a name is introduced herein.

**Key words.** Aves, *Euryptila*, subspecific variation, climate.

The Cinnamon-breasted Warbler *Euryptila subcinnamomea* (A. Smith, 1847: Kamiesberg, Little Namaqualand, north-western Cape Province) is a sparse and local endemic sylviid of the mountains of the plateau regions back from the coast of the south-west Afrotropics, ranging from the Naukluft Mtns of Namibia, south to the Succulent Karoo of the western Cape, thence locally east to the south of the Orange R. to about 25° E. (Clancey 1985). It affects stunted karoid scrub growing among accumulations of boulders on eroded hillsides and the rock-walls of gorges, and is of necessity local and seldom common. It is allied to the African barred warbler complex of the genus *Calamonastes*, which replaces it to the north and east of its range, such spatially remote taxa species of woodland savanna types (mainly *Acacia* and *Brachystegia/Julbernardia* formations) and in no way associated with rocks. Largely on the basis of its markedly different ecology compared with the three species of the genus *Calamonastes* Sharpe, 1883 (*C. simplex*, *C. stierlingi* and typespecies *C. fasciolatus*), Fry (1976) has argued in support of placing *subcinnamomea* in the monotypic genus *Euryptila* of Sharpe, 1883, this view followed by Traylor (1986).

Currently the Cinnamon-breasted Warbler is believed to show no geographically related variation, but as long ago as the late 1950s, the late Professor G. Niethammer of the Zoologisches Forschungsinstitut und Museum Koenig, Bonn, in correspondence with the present author, expressed the view that the Naukluft Mtns, Namibia, representation could seemingly be different to the populations of the Cape Province to the south of the Orange River. Probably due to a shortage of material, the matter was taken no further by Niethammer. Study of the material of *E. subcinnamomea* in southern African museum collections, while admittedly limited, confirms his supposition that the Namibian population was probably different to those present to the south of the Orange River. It showed that in direct association with lower rainfall (<120 mm p. a.), the birds occurring in the singularly arid regions of Bushmanland

and the Richtersveld of the lower Orange River system, north to the Naukluft Mtns in Great Namaqualand, Namibia, exhibit a range of characters separating them from those of the more mesic regions of the Cape to the south of the Orange with the rainfall higher (from ca 120–250 mm). In the light of these findings it is desirable to recognise the present warbler as a polytypic species comprising two subspecies.

*Euryptila subcinnamomea subcinnamomea* (Smith)

*Drymoica subcinnamomea* A. Smith, Illustr. Zool. South Africa, Aves, 1847, pl. 11, fig. 1 (and text): Kamiesberg, Little Namaqualand, north-western Cape Province.

Mantle and scapulars Saccardo's Umber (Ridgway (1912). Ventrally with the fore-throat and breast gorget Smoke Gray, the feather bases dull black, and the mid lower breast-patch saturated Burnt Sienna.

Measurements: Wings of 7 ♂ 52.25–55 (53.5), sd 1.01, tails 55.5–60 (57.4), sd 1.74, wings of 3 ♀ 50.5–51.5 (50.8), sd 0.57, tails 51.5–54.5 (52.6) sd 1.60 mm.

Material examined: 10. (Cape Province: Karooport, Koue Bokkeveld; Klaver; 32.2 km N. E. of Garies; Springbok; Okiep, near Springbok; mid-Orange R.; De Aar; Colesberg).

Range: The plateau of the western Cape in the Succulent Karoo from Springbok, south to ca 33° 25' S., and through the Great Karoo to about 25° E. in the region of Colesberg and the Hendrik Verwoerd Dam.

Remarks: The range is more continuous than suggested by map 277 in Hall & Moreau (1970). Two male topotypes from Kamieskroon taken in December had wings of 55 and 55, tails 57–61 mm. British Museum (Nat. Hist.).

*Euryptila subcinnamomea petrophila*, subsp. nov.

Type: ♂, adult. Dry river gorge N. of Pofadder, Bushmanland, north-western Cape Province. 9 June, 1962. Collected by P. A. Clancey. In the collection of the Durban Natural Science Museum, D. M. Reg. No. 3178.

Differs from nominate *E. subcinnamomea* in ranging both paler and more ochreous or tawny over the upper-parts (mantle and scapulars Brussels Brown, versus Saccardo's Umber). Ventrally, with the gorget (chin to breast) dusty Vinaceous-Buff rather than Smoke Gray, showing little of the basal black to the feathers, this replaced by light reddish brown bleeding up from the mid-venter; lower mid breast-patch close to Amber Brown as against saturated Burnt Sienna in *E. s. subcinnamomea*; belly and flanks paler and more buffish brown. Tail-feathers generally browner, the rectrices sharply tipped with hazel. Ranging slightly longer in tail-length, this most marked in the female.

Measurements: Wings of 8 ♂ 52–56 (53.5), sd 1.28, tails (of 6) 57–61.5 (59.3), sd 1.66, wings of 4 ♀ 50.5–52.5 (52.0), sd 1.00, tails 54–57.5 (56.2), sd 1.55 mm.

Material examined: 12 (Cape Province: Neusabis, Richtersveld; gorge N. of Pofadder; Aughrabies Falls. Namibia: 24 km S. W. of Warmbad; near Narubis, Great Karas Mtns; Barbi, Helmeringhausen; Naukluft Mtns).

Range: The arid lower valley of the Orange River from the Aughrabies Falls west to the Richtersveld, and Great Namaqualand, Namibia, as far north as the Namib-Naukluft Park on the plateau.

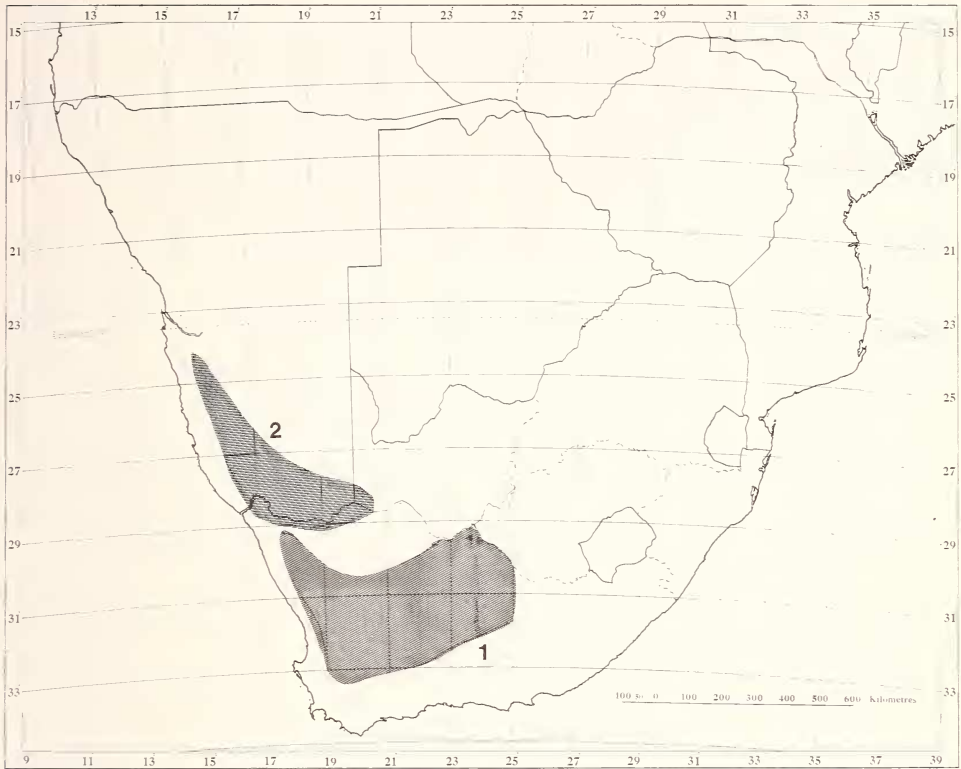


Fig. 1: Sketch-map of the Southern African Subregion showing the established range of the Cinnamon-breasted warbler. 1. *Euryptila subcinnamomea subcinnamomea* (Smith). 2. *Euryptila subcinnamomea petrophila* Clancey.

Measurements of the type: Wing (flattened) 52.5, culmen from skull 17, tail 57 mm.

Etymology: *Petrophila*, Greek, favouring or loving boulders and rock-faces.

Remarks: Hoesch & Niethammer (1940) give the weights of the two specimens from the Naukluft Mtns in Namibia as 10.5 and 12.5 g.

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#### Zusammenfassung

Der Zimtbrustsänger *Euryptila subcinnamomea* (A. Smith, 1847) ist ein nicht sehr häufiger Endemit des südwestafrikanischen Trockengebietes, der niedriges Buschwerk in felsigem Gelände bewohnt und von Mittel-Namibia südwärts bis zu den Karoo-Landschaften der Kap-Provinz verbreitet ist. Er ist nahe verwandt den drei kleinen Bindensängern der Gattung *Cal*

*monastes* (*C. simplex*, *C. stierlingi* und *C. fasciolatus*) und vielleicht nicht generisch von diesen zu sondern. Im Gegensatz zu ihnen schien aber nach bisheriger Annahme beim Zimtbrustsänger keine taxonomisch verwertbare geographische Variation erkennbar zu sein. Eine Untersuchung des in den Museen des südlichen Afrika vorhandenen Materials von *E. subcinnamomea* zeigte aber nun, daß die Art nicht monotypisch ist, sondern entsprechend der Niederschlags-höhe in ihrem Verbreitungsgebiet geographisch variiert, so daß zwei Subspezies, neben der Nominatform die hier neu benannte *E. s. petrophila*, angenommen werden können.

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